AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior listings of claims:

1. (Currently amended) A distributed modular input/output system comprising:

an industrial controller programmed to control an industrial process;

a network adapter located remotely from and operatively connected to said industrial controller through a wired or wireless network connection;

a master input/output portion comprising: (i) a first group of one or more input/output modules physically and electrically connected to each other and to said network adapter through a master backplane for exchange of input/output data with said industrial controller through said network adapter; and (ii) a primary wireless device physically and electrically connected to said network adapter and said first group of input/output modules by said master backplane ~~adapted to be operatively connected to an associated industrial controller~~;

at least one servant input/output portion physically separate and spaced from the master input/output portion and comprising: (i) a second group of one or more input/output modules physically and electrically connected to each other by a servant backplane; and (ii) a secondary wireless device physically and electrically connected to said second group of input/output modules by said servant backplane; ~~physically disconnected from the primary wireless device,~~

a primary wireless backplane link operatively connecting said secondary wireless device ~~operatively connected to the~~ to said primary wireless device ~~by a primary wireless backplane link;~~ , wherein said second group of input/output modules exchange input/output data with said industrial controller through said servant backplane, said secondary wireless device, said primary wireless backplane link, said primary wireless device, said master backplane and said network adapter

~~at least one input/output module operatively connected to the secondary wireless device, wherein an associated field device connected to said at least one input/output module is adapted to communicate with the associated industrial controller via said secondary wireless device, said primary wireless backplane link, and said primary~~

~~wireless device~~.

2. (Currently Amended) The distributed modular input/output system as set forth in claim 1, ~~comprising:~~

~~a plurality of said secondary wireless devices physically disconnected from the primary wireless device and each comprising one or more of said input/output modules operably connected thereto, each of~~ comprising a plurality of separate ones of said servant input/output portions, wherein said plurality of separate servant input/output portions comprise respective secondary wireless devices that are operatively connected to the primary wireless device of said master input/output portion by a respective plurality of independent primary wireless backplane links.

3. (Currently Amended) The distributed modular input/output system as set forth in claim 2, wherein each of said plurality of secondary wireless devices of said respective plurality of servant input/output portions is uniquely identified and wherein said plurality of primary wireless backplane links are established using a shared segment of a radio frequency spectrum.

4. (Currently Amended) The distributed modular input/output system as set forth in claim 3, wherein said plurality of primary wireless backplane links are used respectively by said secondary wireless devices of said respective plurality of servant input/output portions to communicate time-sensitive and time-insensitive data to said primary wireless device.

5. (Currently Amended) The distributed modular input/output system as set forth in claim 3, wherein each of said plurality of secondary wireless devices of said respective plurality of servant input/output portions comprises a user selectable configuration device that uniquely identifies each of said secondary wireless devices.

6. (Original) The distributed modular input/output system as set forth in claim 2, further comprising a plurality of redundant wireless backplane links, each of said redundant wireless backplane links comprising a wireless communication link from a first one of said secondary wireless servant devices to a second one of said secondary wireless devices or from said primary wireless device to one of said secondary wireless devices, wherein said redundant wireless backplane links establish at least one alternative wireless communication path between each secondary wireless device and said primary wireless device.

7. (Currently Amended) The distributed modular input/output system as set forth in claim 6, wherein each secondary wireless device of said respective plurality of servant input/output portions communicates to said primary wireless device via simultaneous use of one of said primary wireless backplane links and one of said redundant wireless backplane links.

8. (Currently Amended) The distributed modular input/output system as set forth in claim 2, wherein at least some of said plurality of servant input/output portions ~~secondary wireless devices~~ are located in different physical environments relative to ~~other secondary wireless devices~~ others of said plurality of servant input/output portions.

9. (Original) The distributed modular input/output system as set forth in claim 8, wherein said different environments include at least two of IP-20,IP-65,IP-67.

10. (Currently Amended) The distributed modular input/output system as set forth in claim 9, wherein at least one of said ~~secondary wireless devices~~ servant input/output portions is an intrinsically safe device located in an explosive environment.

11. (Currently Amended) The distributed modular input/output system as set forth in claim 3, wherein each secondary wireless device of said respective plurality of servant input/output portions comprises a visual display that provides a visual indication of a unique identifier by which said secondary wireless device is uniquely identified.

12. (Original) The distributed modular input/output system as set forth in claim 1, wherein said secondary wireless device comprises a wireless link quality indicator that provide visible indicia of quality the primary wireless backplane link.

13. (Canceled)

14. (Original) The distributed modular input/output system as set forth in claim 1, wherein said primary wireless backplane link comprises a radio frequency signal.

15. (Original) The distributed modular input/output system as set forth in claim 6, wherein said redundant wireless backplane links are dissimilar from said primary wireless backplane links in terms of at least one of communication type, frequency, and protocol.

16. (Original) The distributed modular input/output system as set forth in claim 2, further comprising a user interface device that is selectively connectable to said primary wireless device or one of said secondary wireless devices, said human interface device comprising a visual display that outputs an overall topology of the modular input/output system including said primary wireless device and said plurality of secondary wireless devices, and wherein said primary wireless device and said secondary wireless devices each output a visual or audio signal when communicating with said user interface device.

17. (Canceled)

18. (Canceled)

19. (Cancelled)

20. (Original) The distributed modular input/output system as set forth in claim 1, wherein the primary wireless device and secondary wireless device communicate with each other via said primary wireless backplane link according to a master-servant relationship where the primary wireless device initiates all communication between itself and the secondary wireless device.

21. (Original) The distributed modular input/output system as set forth in claim 1, wherein the primary wireless device and secondary wireless device communicate with each other via said primary wireless backplane link according to a peer-to-peer relationship where either device is adapted to initiate communication with the other.